

FIG. 1

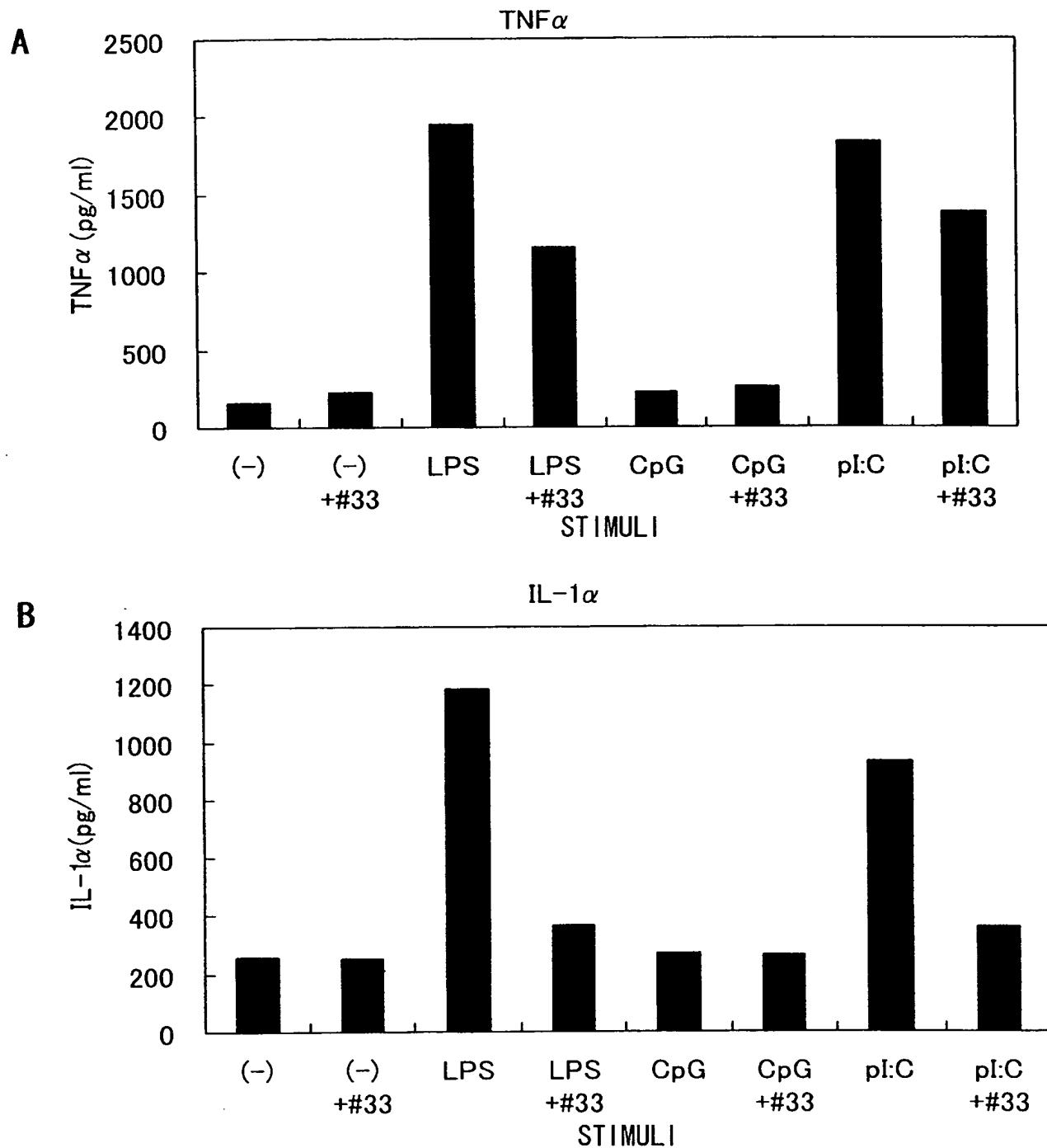
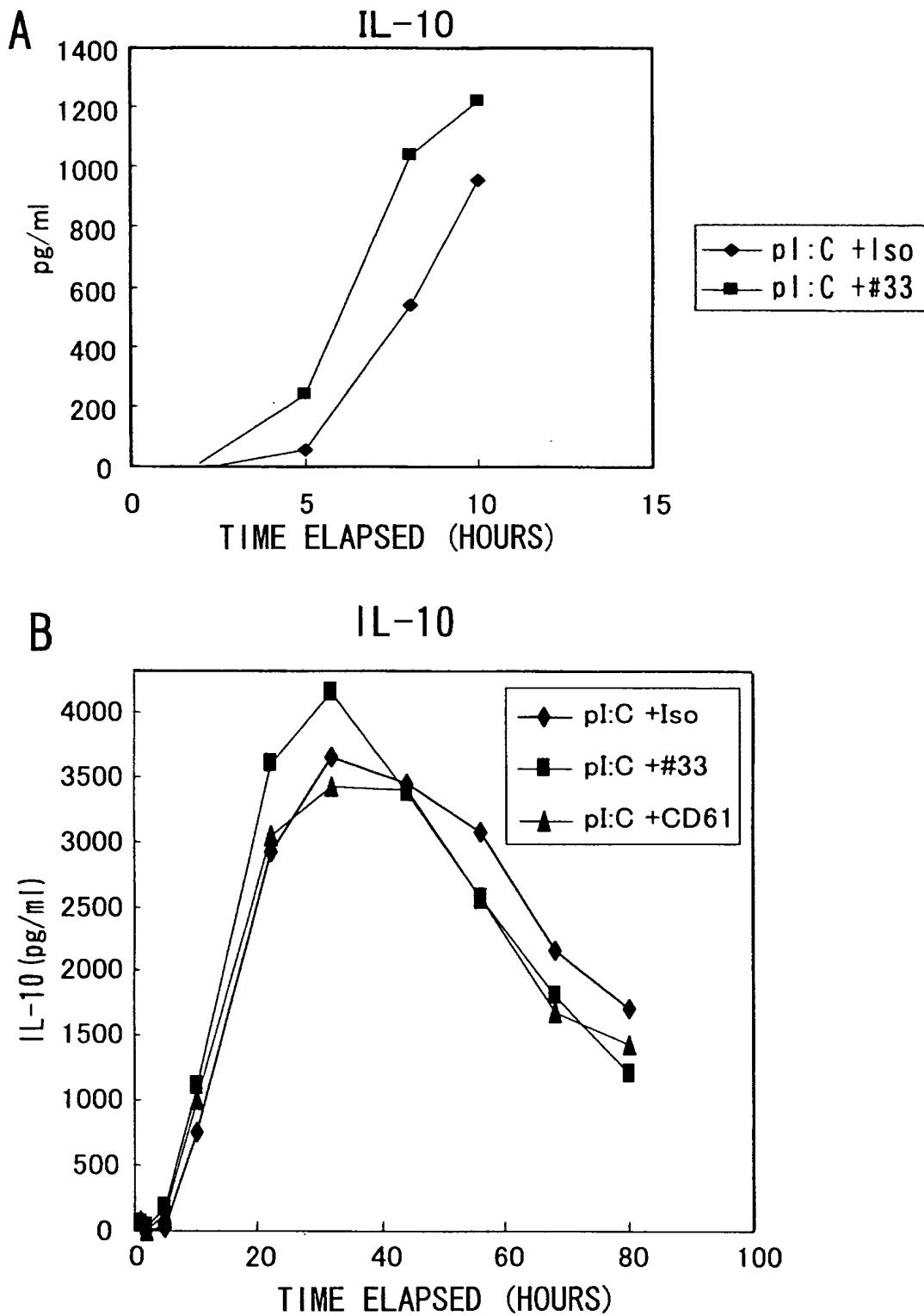
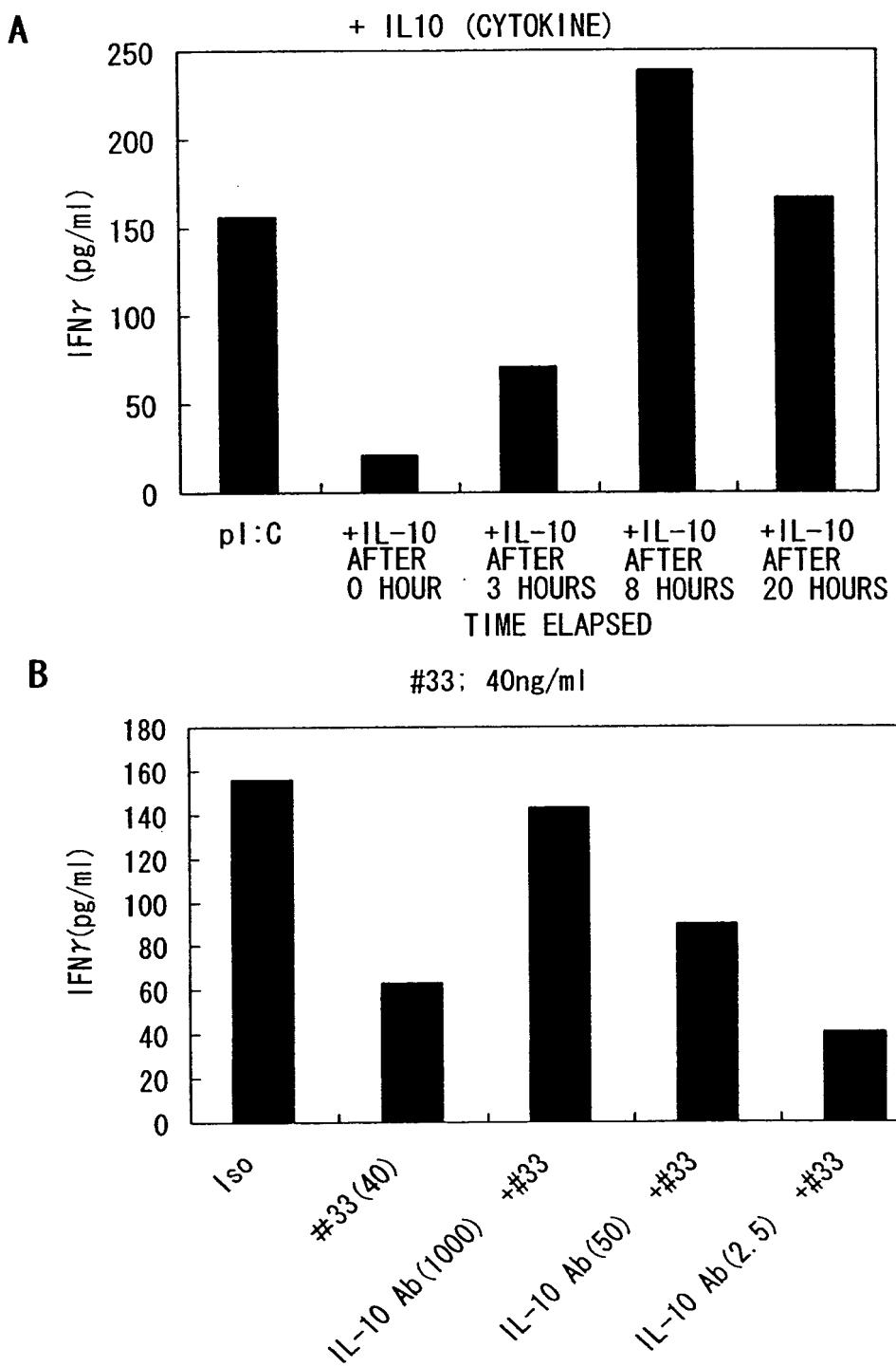
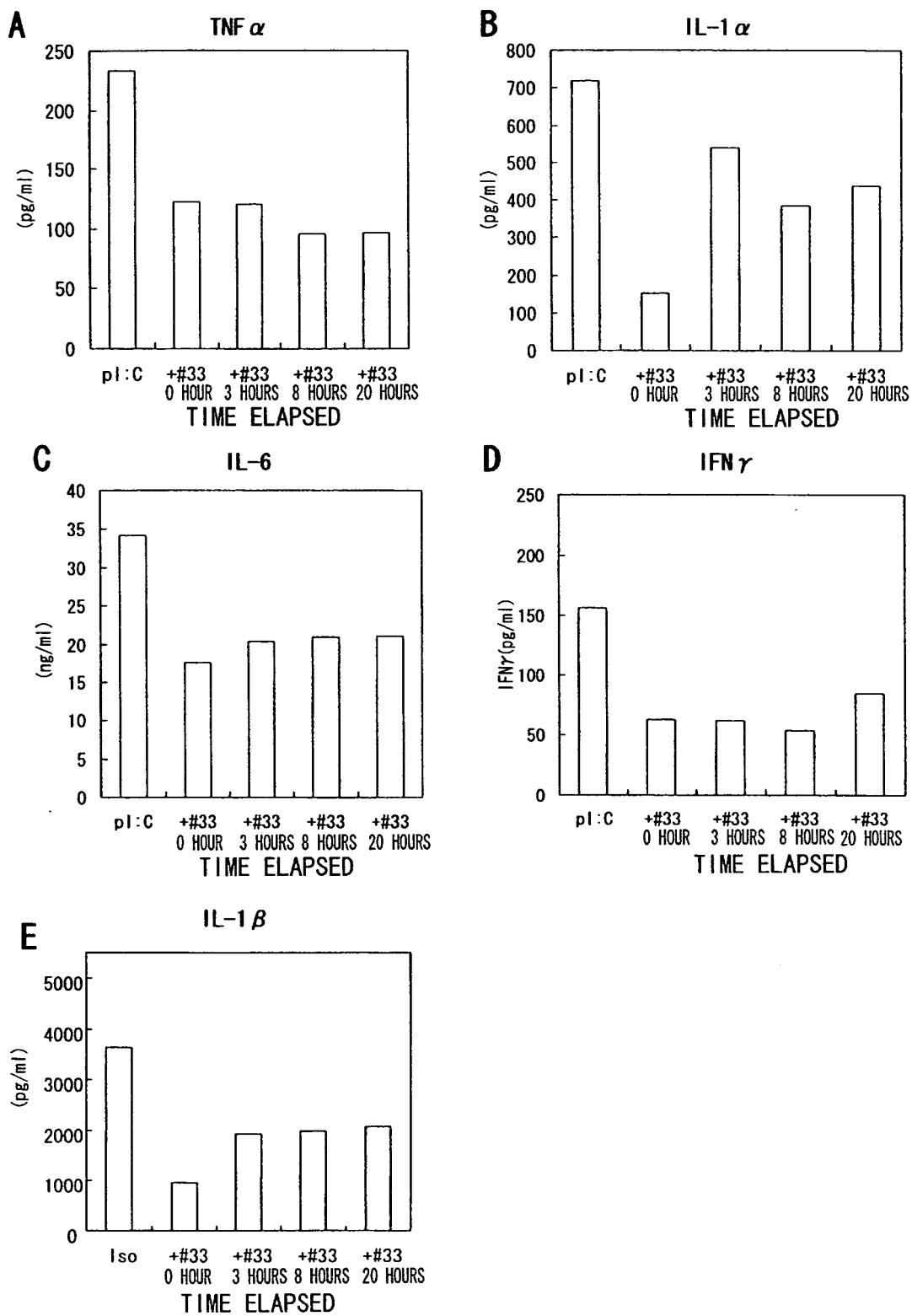


FIG. 2

**FIG. 3**

**FIG. 4**

**FIG. 5**

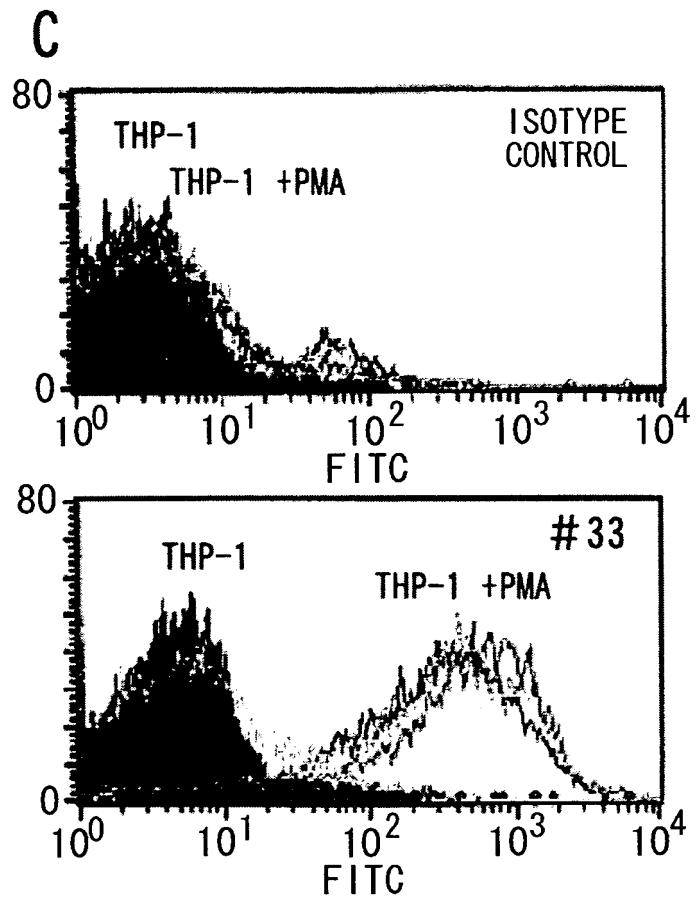
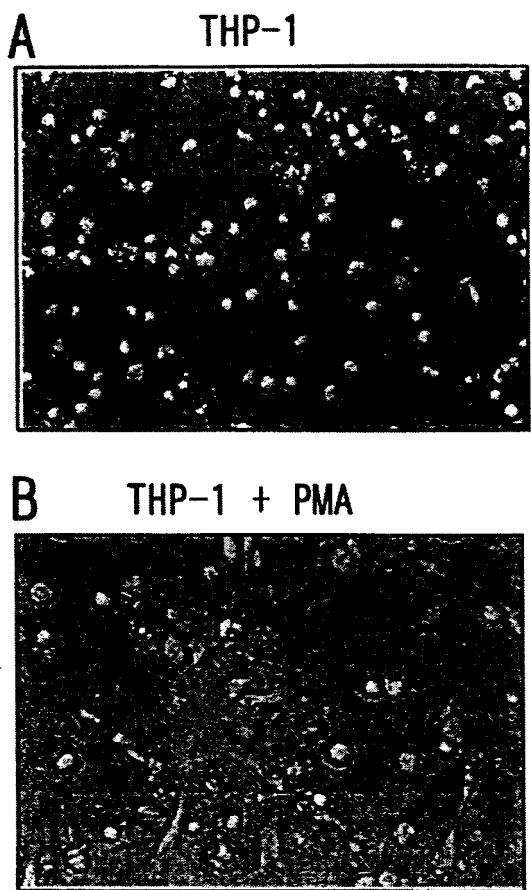


FIG. 6

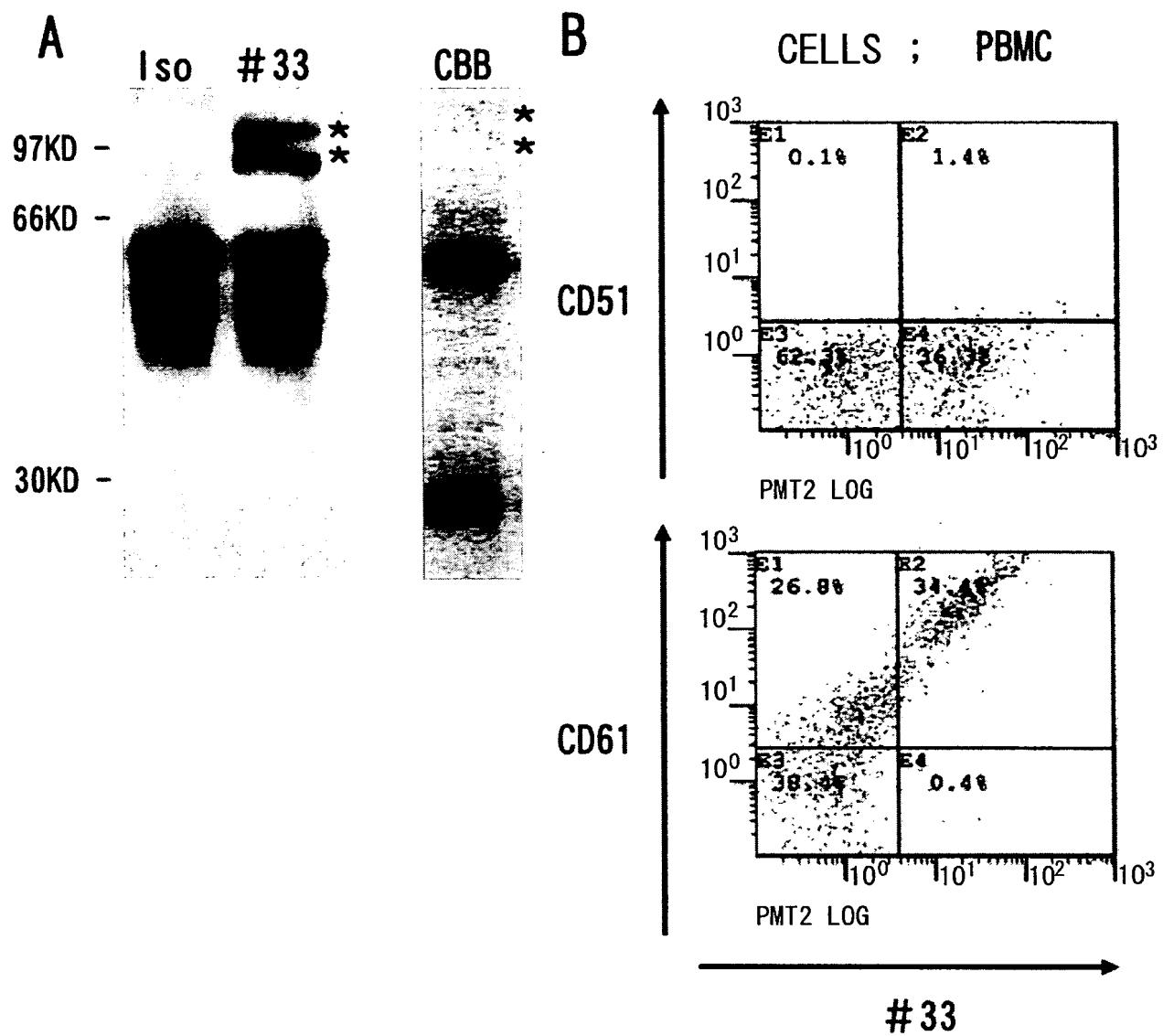
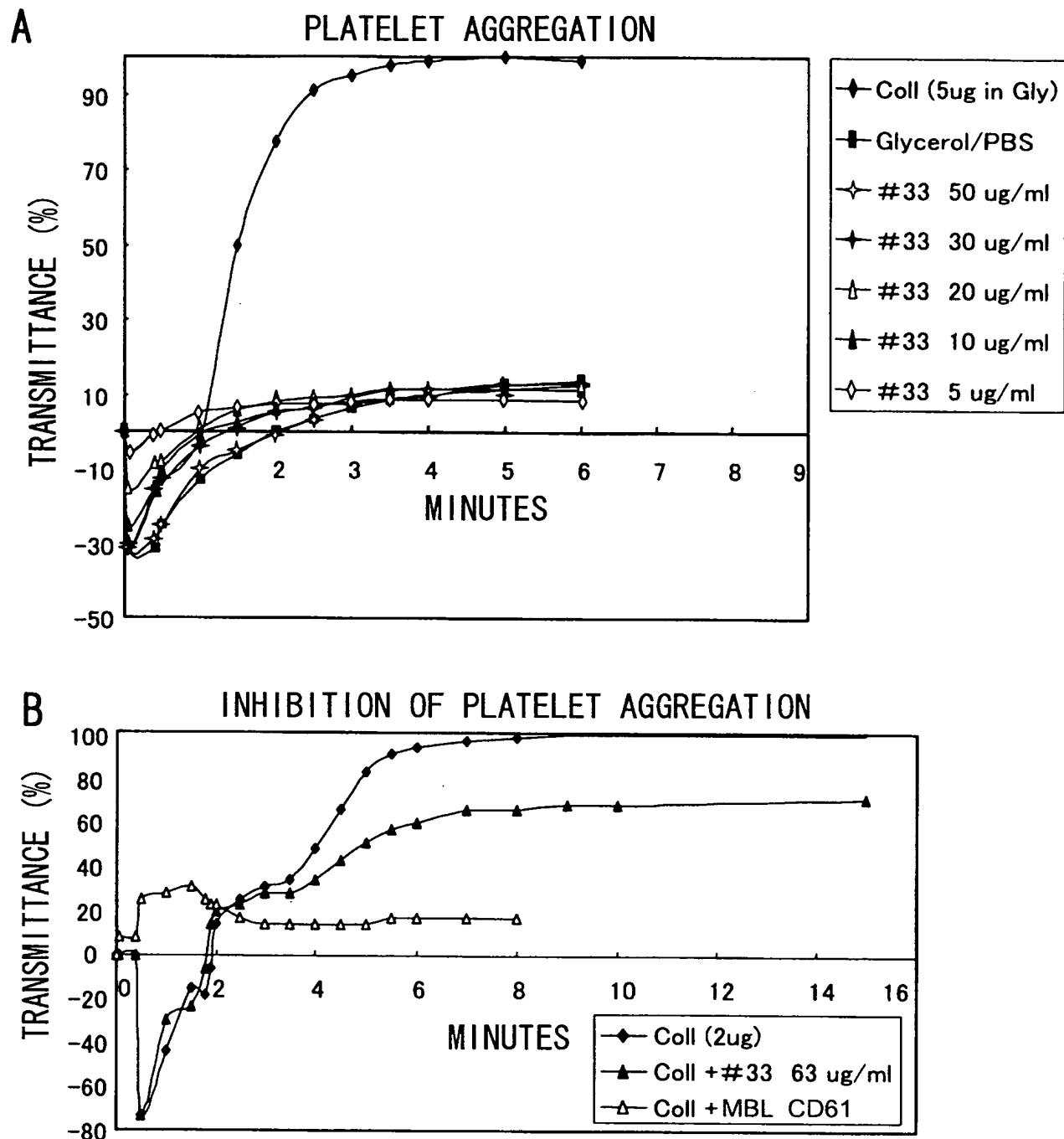


FIG. 7

**FIG. 8**

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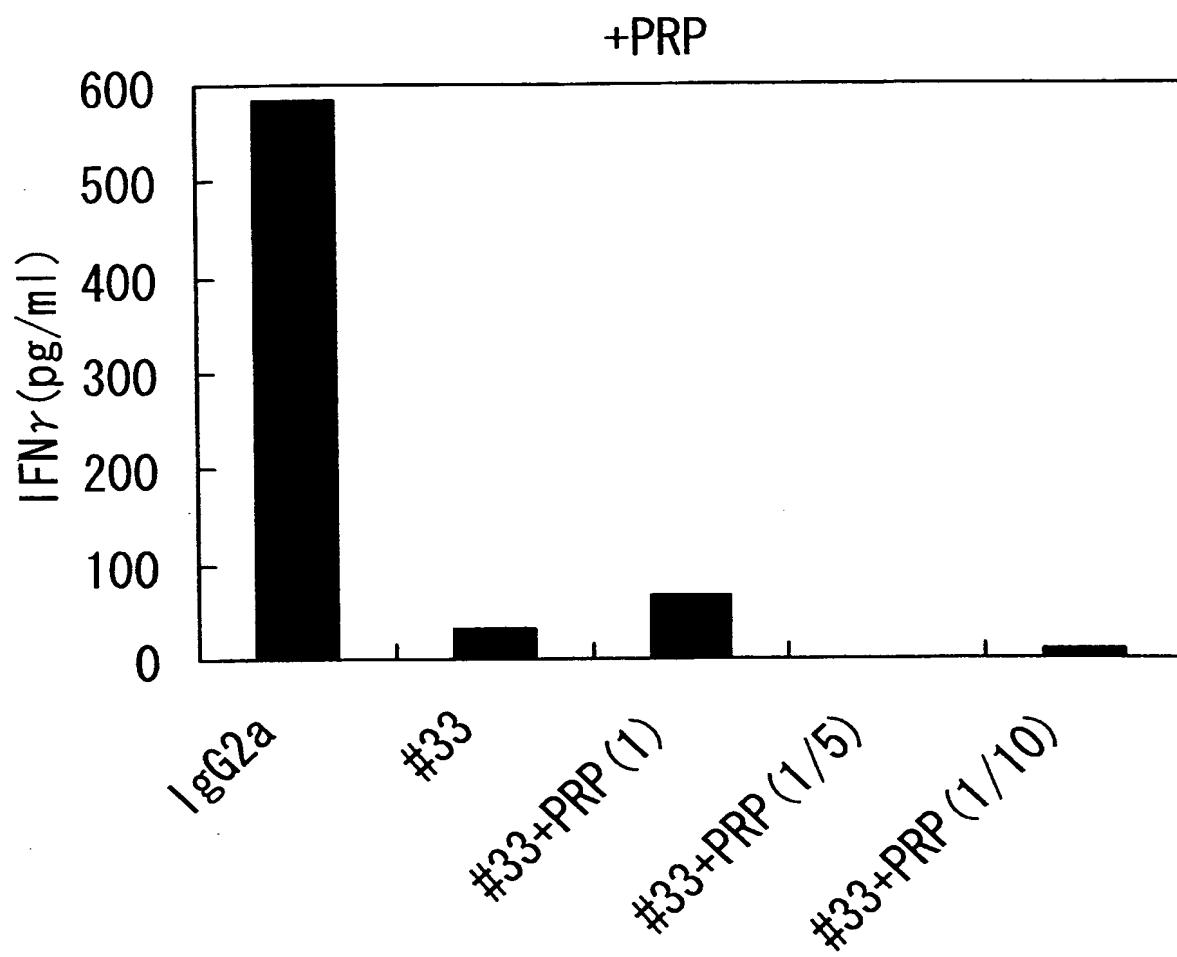


FIG. 9

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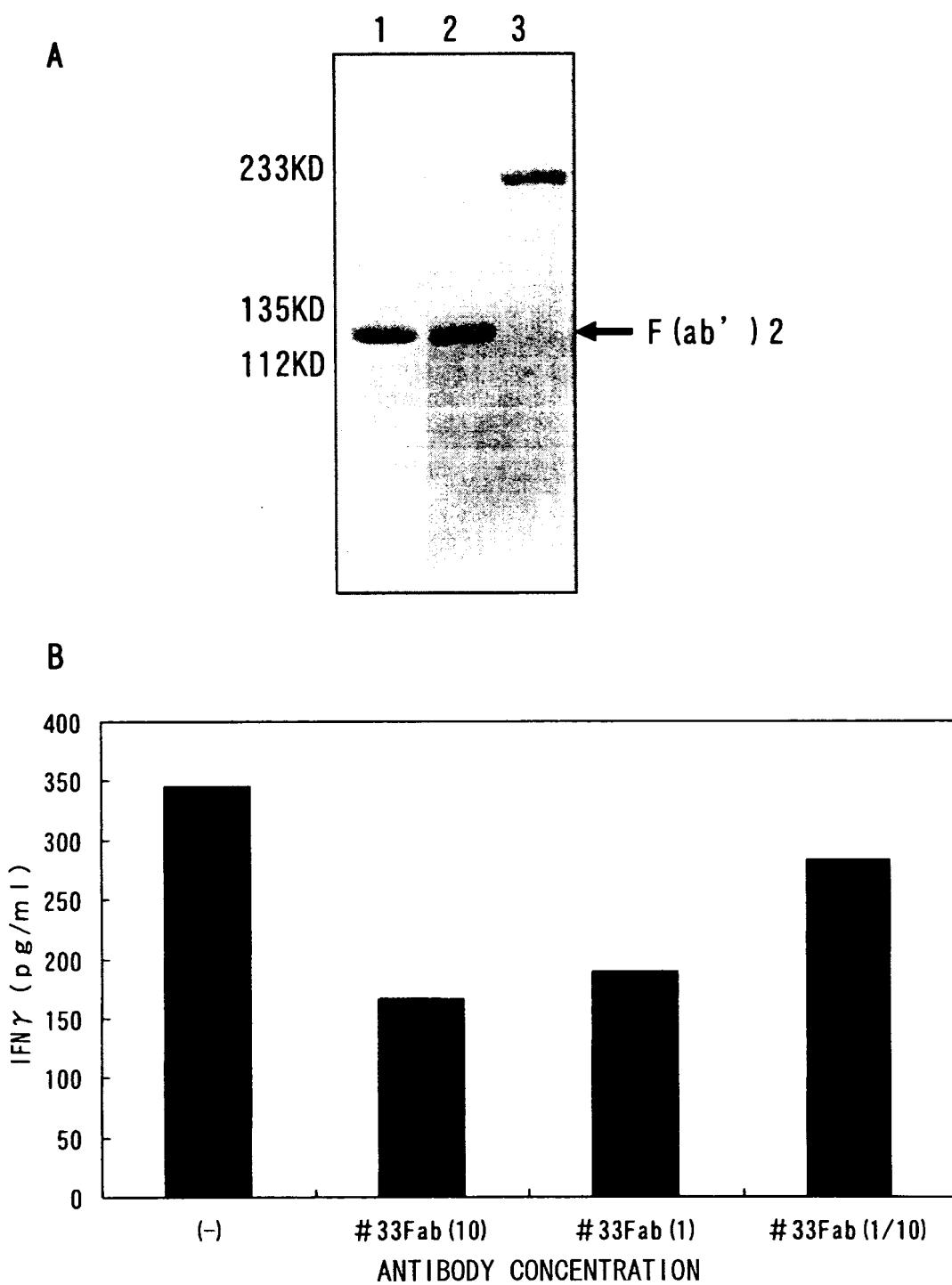


FIG. 10

**#33 HEAVY CHAIN**

|   |     |     |      |     |     |
|---|-----|-----|------|-----|-----|
| 10  | 20  | 30  | 40   | 50  | 60  |
| ATGGAATGGAGCGGGGTCTTATCTCCTGTCAGGAAC                          |     |     |      |     |     |
| M   | E   | W   | S    | G   | V   |
| F   | I   | F   | L    | L   | S   |
| T   | T   | G   | T    | G   | V   |
| H   | S   | E   |      |     |     |
|   |     |     |      |     |     |
| 70  | 80  | 90  | 100  | 110 | 120 |
| GTCCAGCTGCTACAGTCTGGACCTGAGCTGGTGAAGCCTGGAGCTTCAATGAAGATATCC  |     |     |      |     |     |
| V   | Q   | L   | L    | Q   | S   |
| G   | P   | E   | L    | V   | K   |
| P   | G   | A   | S    | M   | K   |
| I   | S   |     |      |     |     |
|   |     |     |      |     |     |
| 130   | 140 | 150 | CDR1 | 160 | 170 |
| TGCAAGGCTTCTGGTTACTCATTC                                      |     |     |      |     |     |
| TGCAAGGCTTCTGGTTACTCATTC                                      |     |     |      |     |     |
| C   | K   | A   | S    | G   | Y   |
| S   | F   | T   | G    | Y   | T   |
| M   | N   |     | W    | V   | K   |
| N   | I   | S   | H    | Q   | S   |
|   |     |     |      |     |     |
| 190   | 200 | 210 | CDR2 | 220 | 230 |
| GGAAAGAACCTTGAGTGGATTGGACTTATTAAATCCTTACAGTGGTGTACTACCTACAAAC |     |     |      |     |     |
| G   | K   | N   | L    | E   | W   |
| I   | G   | L   | I    | N   | P   |
|   |     |     | Y    | S   | G   |
|   |     |     | V    | T   | T   |
|   |     |     | Y    | N   |     |
|   |     |     |      |     |     |
| 250   | 260 | 270 | 280  | 290 | 300 |
| CAGAGGTTCAAGGGCAAGGCCACATTA                                   |     |     |      |     |     |
| CAGAGGTTCAAGGGCAAGGCCACATTA                                   |     |     |      |     |     |
| Q   | R   | F   | K    | G   | K   |
| A   | T   | L   | T    | V   | D   |
|   |     |     |      | K   | S   |
|   |     |     |      | S   | S   |
|   |     |     |      | T   | A   |
|   |     |     |      | Y   | M   |
|   |     |     |      |     |     |
| 310   | 320 | 330 | 340  | 350 | 360 |
| GAGCTCCTCAGTCTGACATCTGAGGACTCTGCAGTCTATTACTGTGCAACACGGGGGGCT  |     |     |      |     |     |
| E   | L   | L   | S    | L   | T   |
| S   | E   | D   | S    | A   | V   |
|   |     |     |      | Y   | Y   |
|   |     |     |      | C   | A   |
|   |     |     |      | T   | R   |
|   |     |     |      |     | G   |
|   |     |     |      |     | A   |
|   |     |     |      |     |     |
| 370 CDR3  | 380 | 390 | 400  | 410 | 420 |
| CTGGGACAGGCGTACTACTTTGACTACTGGGGCCAAGGCACCACTCTCACAGTCTCCTCA  |     |     |      |     |     |
| L   | G   | Q   | A    | Y   | Y   |
| F   | D   | Y   | W    | G   | Q   |
|   |     |     |      | G   | T   |
|   |     |     |      | T   | T   |
|   |     |     |      | L   | V   |
|   |     |     |      | S   | S   |
|   |     |     |      |     |     |
| 430   | 440 | 450 |      |     |     |
| GCCAAAACAACAGCCCCATCGGTCTATCCACTG (SEQ ID NO: 12)             |     |     |      |     |     |
| A   | K   | T   | T    | A   | P   |
| S   | V   | Y   | P    | L   |     |
| (SEQ ID NO: 4)  |     |     |      |     |     |

**FIG. 11**

| #33 LIGHT CHAIN   |                              |                   |                |     |     |     |   |   |   |   |   |   |   |   |   |   |   |
|---|------------------------------|-------------------|----------------|-----|-----|-----|---|---|---|---|---|---|---|---|---|---|---|
| 10  | 20                           | 30                | 40             | 50  | 60  |     |   |   |   |   |   |   |   |   |   |   |   |
| M   | D                            | L                 | Q              | V   | Q   | I   | I | S | F | L | L | I | S | A | S | V | M |
|   |                              |                   |                |     |     |     |   |   |   |   |   |   |   |   |   |   | I |
|   |                              |                   |                |     |     |     |   |   |   |   |   |   |   |   |   |   | S |
| 70  | 80                           | 90                | 100            | 110 | 120 |     |   |   |   |   |   |   |   |   |   |   |   |
| R   | G                            | Q                 | I              | V   | L   | T   | Q | S | P | V | I | M | S | A | S | P | G |
|   |                              |                   |                |     |     |     |   |   |   |   |   |   |   |   |   |   | E |
|   |                              |                   |                |     |     |     |   |   |   |   |   |   |   |   |   |   | R |
| 130   | 140                          | CDR1              | 150            | 160 | 170 | 180 |   |   |   |   |   |   |   |   |   |   |   |
| GTCACCTTGACCTGCA  | GTGCCAGCTCAAGTGTAAATTACATGC  | ACTGGTACCAGCAGAAG |                |     |     |     |   |   |   |   |   |   |   |   |   |   |   |
| V   | T                            | L                 | T              | C   | S   | A   | S | S | S | V | N | Y | M | H | W | Y | Q |
|   |                              |                   |                |     |     |     |   |   |   |   |   |   |   |   |   |   | Q |
|   |                              |                   |                |     |     |     |   |   |   |   |   |   |   |   |   |   | K |
| 190   | 200                          | 210               | CDR2           | 220 | 230 | 240 |   |   |   |   |   |   |   |   |   |   |   |
| TCAGGCACCTCCCCAAAAGATGGATTATG                               | ACACATCCAAACTGGCTCTGGAGTC    | GGCTCTGGAGTC      |                |     |     |     |   |   |   |   |   |   |   |   |   |   |   |
| S   | G                            | T                 | S              | P   | K   | R   | W | I | Y | D | T | S | K | L | A | S | G |
|   |                              |                   |                |     |     |     |   |   |   |   |   |   |   |   |   |   | V |
|   |                              |                   |                |     |     |     |   |   |   |   |   |   |   |   |   |   | P |
| 250   | 260                          | 270               | 280            | 290 | 300 |     |   |   |   |   |   |   |   |   |   |   |   |
| CCTCGCTTCAGTGGCAGTGGTTc                                     | GGGACATCAT                   | ACTCTCTCACAA      | TACCAACATGGAG  |     |     |     |   |   |   |   |   |   |   |   |   |   |   |
| P   | R                            | F                 | S              | G   | S   | G   | F | G | T | S | Y | S | L | T | I | T | N |
|   |                              |                   |                |     |     |     |   |   |   |   |   |   |   |   |   |   | M |
|   |                              |                   |                |     |     |     |   |   |   |   |   |   |   |   |   |   | E |
| 310   | 320                          | 330               | CDR3           | 340 | 350 | 360 |   |   |   |   |   |   |   |   |   |   |   |
| GCTGAAGATGCTGCCACTTATTACTG                                  | CCAGCAGTGGAGTAGTAAGCCACCCACG | TTCGGT            |                |     |     |     |   |   |   |   |   |   |   |   |   |   |   |
| A   | E                            | D                 | A              | A   | T   | Y   | Y | C | Q | Q | W | S | S | K | P | P | T |
|   |                              |                   |                |     |     |     |   |   |   |   |   |   |   |   |   |   | F |
|   |                              |                   |                |     |     |     |   |   |   |   |   |   |   |   |   |   | G |
| 370   | 380                          | 390               | 400            | 410 | 420 |     |   |   |   |   |   |   |   |   |   |   |   |
| TTTGGGACCAAGCTGGAGCTGCAACGGGCTGATGCTGCACCAACTGTATCCATCTCCCA |                              |                   |                |     |     |     |   |   |   |   |   |   |   |   |   |   |   |
| F   | G                            | T                 | K              | L   | E   | L   | Q | R | A | D | A | A | P | T | V | S | I |
|   |                              |                   |                |     |     |     |   |   |   |   |   |   |   |   |   |   | F |
|   |                              |                   |                |     |     |     |   |   |   |   |   |   |   |   |   |   | P |
| 430   |                              |                   |                |     |     |     |   |   |   |   |   |   |   |   |   |   |   |
| CCATCCAGT   | (SEQ ID NO: 16)              |                   |                |     |     |     |   |   |   |   |   |   |   |   |   |   |   |
| P   | S                            | S                 | (SEQ ID NO: 8) |     |     |     |   |   |   |   |   |   |   |   |   |   |   |

FIG. 12